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**PROFILE OF THE PSYCHIATRIC INPATIENT POPULATION  
IN A MAJOR NAVAL HOSPITAL**

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PROFILE OF THE PSYCHIATRIC INPATIENT POPULATION IN A MAJOR NAVAL HOSPITAL

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## SUMMARY

### Problem

Shortages of professional personnel and soaring costs of medical care demand careful review of hospital admission policies and treatment regimes for psychiatric patients.

### Objective

The purpose of the present study was to examine psychiatric patient characteristics at a major Navy hospital, to relate these characteristics to disposition and outcome, and to compare the current patient population with populations studied earlier.

### Approach

All Navy enlisted personnel were identified who had a first admission to the Psychiatric Service of the naval hospital in San Diego during the period 1 January 1980 through 30 June 1980. Complete hospital records were obtained from archives from which pertinent demographic, clinical, and dispositional data were abstracted. These records were matched with Navy enlisted history files to obtain information concerning active duty or discharge status at least six months following release from the hospital. Using this information posttreatment effectiveness was determined.

### Results

The hospitalized population was largely male (91%), Caucasian (81%), and single (72%). The majority were both nonrated and 21 years old or younger.

Diagnoses of psychosis accounted for one-third of both admission and discharge diagnoses and there was greater stability in diagnosis from admission to discharge for the psychoses than was true for any other diagnostic group. Major shifts occurred in other categories. Neurosis and Other Psychiatric diagnoses were more often given at admission while Personality Disorder and alcohol diagnoses were given at discharge. Specific patient profiles associated with diagnosis emerged. Those diagnosed Personality Disorder were the very young, with low pay grades, and few months in service. They were often referred because of suicide gestures, wanting out of the Navy, and having trouble with the Navy way of life. They were often recommended for administrative separation and had a poor effectiveness rate (16%) upon return to duty. Those diagnosed neurotic, Adjustment Reaction, or who received alcohol diagnoses were older, of higher pay grades, had more time in service, and were more often referred for marital problems. They were generally recommended for return to duty and had effectiveness rates of 60% or better. The demographic profile of those with psychotic diagnoses was similar to the Personality Disorders. However, they were more often referred because of inappropriate behavior, remained in the hospital for longer periods of time, were recommended for additional treatment, and were more apt to receive medical discharges than other patient groups.

### Conclusions

1 - A larger proportion of patients was diagnosed psychotic and smaller proportions were diagnosed Personality Disorder or neurotic than was true in earlier studies. The degree to which this reflects regional hospital admission policies as opposed to changes in kinds of patients requiring hospital care is not known.

2 - The profiles of the diagnostic groups that emerged are not unlike those that have characterized Navy psychiatric populations during the last two decades.

3 - The association of return to duty and posttreatment effectiveness with seniority, advanced pay grade, and greater time in service is consistent with other studies of hospitalized psychiatric patients.

4 - Periods of hospitalization were shorter for this population than was true in earlier studies.

### Recommendations

1 - Studies of patient populations should be carried out at other Navy hospitals to determine similarities and differences among patient groups in distributions of diagnoses, lengths of hospital stay, dispositions, and outcomes.

2 - Screening tools should be developed to prevent enlistment of those persons likely to become psychiatric casualties early in their service careers.

3 - Clearer criteria for diagnosis should be established and their use by clinicians encouraged.

## Profile of the Psychiatric Inpatient Population in a Major Navy Hospital

### INTRODUCTION

In recent years, both the shortage of professional personnel and the soaring costs of medical care, especially for inpatients, have caused administrators of Navy psychiatric services to review carefully their hospital admission policies and their treatment regimes for various patient groups. The purpose of this investigation was to examine psychiatric patient characteristics at a major Navy hospital, to relate these characteristics to disposition and outcome, and to compare the current patient population with populations studied earlier (1-3).

### METHOD

Subjects. The subjects were Navy enlisted personnel with a first admission to the Psychiatric Service, Navy Regional Medical Center, San Diego, from 1 January 1980 through 30 June 1980 (N = 376). They represented 76% of all admissions to the Psychiatric Service during that six months period. The remaining 24% of the patient population were members of the Marine Corps. Compared with the Navy patient group, the marines were younger, more often single, more often black, of lower pay grade, and had less time in service. They were more frequently recommended for administrative separation at the time of release from the hospital.

Procedure. The subjects were identified from the Patient Log maintained on the Psychiatric Service; a listing of all admissions to the Psychiatric Service for the study period was obtained from computer services at the Regional Medical Center and served as a cross-reference. From the Patient Log the name and Hospital Register Number were extracted. Using the Register Number the complete hospital record of each patient was obtained from the archives. Demographic, service history, and clinical information was extracted from the Inpatient Admission/Disposition Record (NAVMED 6300-5, Rev. 1-74) and included social security number, age, sex, race, marital status, months of service, pay grade, branch of service, occupational specialty, admission and discharge dates, and admission and discharge diagnoses; number of days hospitalized was computed. Information concerning the factors which precipitated hospital admission as well as clinicians' recommendations for return to duty, administrative separation, drug and alcohol treatment, and other treatment were extracted from the Narrative Summary. When a Narrative Summary was not present, a search was made through the existing record for any information pertaining to reasons for hospitalization and recommendations of the treatment staff regarding disposition. Thus, return to duty was recorded when the record stated any of the following: return to duty, fit for duty, or discharge this patient. Administrative separation was recorded only if the psychiatrist specifically recommended it. Other treatment was recorded when the patient was transferred to the Veterans Administration; Navy Regional Medical Center, Oakland; the Mental Health Unit at the Recruit Training Command or when ongoing follow-up treatment was recommended. Information about medical boards was taken from the official reports of the medical boards. Abstracted data were key-punched and entered on magnetic tape. These records were matched with Navy enlisted history files maintained at the Naval Health Research Center to obtain information concerning active duty or discharge status following release from the hospital. Using this information, posttreatment effectiveness was determined for those persons recommended for return to duty as follows: An individual was considered effective who was on active duty or who had received a favorable discharge with no recommendation against reenlistment at least six months after release from the hospital. An individual was considered noneffective who received an unfavorable discharge from service or a negative recommendation for reenlistment at the time of discharge any time after release from the hospital. Individuals who received medical discharges from the service were not included in the effectiveness portion of the study.

Using discharge diagnosis, the patients were grouped by major diagnostic type based on the International Classification of Disease, 9th Revision, Clinical Modification (ICD-9-CM). Seven diagnostic groups were identified as follows: (1) Psychosis (excluding Alcohol Psychosis); (2) Neurosis; (3) Personality Disorder; (4) Adjustment Reaction; (5) Alcohol diagnoses,

including Alcohol Psychosis, Alcohol Dependence, and Alcohol Abuse; (6) other psychiatric diagnosis, and (7) nonpsychiatric diagnosis. Other psychiatric diagnosis included: Drug dependence; nondependent abuse of drugs (excluding alcohol); special symptoms or syndromes, not elsewhere classified; specific nonpsychotic mental disorders due to organic brain damage; and depressive disorder, not elsewhere classified. Nonpsychiatric diagnosis included: V-codes (problems which influence a person's health status but are not in themselves current illnesses), injuries, and poisonings. Bivariate analyses were completed to identify items which discriminated among these seven diagnostic groups.

## RESULTS

Patient Demography. The population was largely male (91%), Caucasian (81%), and single (72%). Forty-five percent had been in service one year or less while 15% had served more than four years. Three-quarters were nonrated, that is, in pay grades E-1 through E-3. The majority, 58%, were 21 years old or younger.

Diagnosis. The distributions of the population on admission and discharge diagnoses are shown in Table 1. The psychoses accounted for approximately one-third of all diagnoses given both on admission and at discharge; further, for the psychoses, there was greater stability in diagnosis from admission to discharge than was true for any other diagnostic group. Neurosis showed the least stability from admission to discharge; of 73 patients admitted with this diagnosis, only three were discharged with it. Adjustment Reaction was the next most frequently recorded diagnosis, accounting for 22% of both admission and discharge diagnoses. However, just 40% of those admitted with this diagnosis were discharged with it. Major shifts in diagnosis occurred in three other categories: other psychiatric diagnoses were more often given at admission than at discharge while Personality Disorder and Alcohol diagnoses were most often given as primary discharge diagnoses.

Table 1

Stability of Diagnosis from Admission to Discharge for Navy Psychiatric Inpatients

Admission Diagnosis	Number	Percent	Discharge Diagnosis						
			Psychosis	Neurosis	Personality Disorder	Adjustment Reaction	Alcohol Diagnoses	Other Psychi.	Non-Psychi.
Psychosis	132	35.4	87	0	15	6	11	4	9
Neurosis	73	19.6	4	3	17	25	16	1	7
Personality Disorder	13	3.5	1	0	8	3	1	0	0
Adjustment Reaction	83	22.2	15	1	21	33	7	2	4
Alcohol Diagnoses	11	3.0	1	1	0	1	6	1	1
Other Psychiatric	37	9.9	6	4	10	10	0	6	1
Nonpsychiatric	24	6.4	5	1	3	4	1	3	7
Number of cases			119	10	74	82	42	17	29
Percent			31.9	2.7	19.8	22.0	11.3	4.6	7.8

Demographic Differences among Diagnostic Groups. Differences among the seven diagnostic groups on demography are shown in Table 2. A much larger proportion of those with Personality Disorders were very young men and women, in the lowest pay grades, and with the fewest months of service. Half of them had been assigned to Deck occupational specialties. Profiles for patients with psychotic diagnoses and nonpsychiatric diagnoses were similar to those for Personality Disorders. Older persons, with greater time in service and higher pay grades, were more likely to be given Neurosis, Adjustment Reaction, or alcohol diagnoses. The group with other psychiatric diagnoses had a mean age similar to the Personality Disorder group but months of service and pay grades were higher.

Reasons for Referral. A number of precipitating factors discriminated among the diagnostic groups. Suicide gesture was recorded for every diagnostic group, but it was most characteristic of those with Personality Disorder and nonpsychiatric diagnoses and least characteristic of those with Psychosis diagnoses. Suicide ideation was most characteristic of

those with Neurosis diagnoses followed by Adjustment Reaction and alcohol diagnoses and, again, least characteristic of those with Psychosis diagnoses. "Wants out of service" and "trouble with the Navy way of life" were reported most frequently by the Personality Disorder group while marital problems were associated with diagnoses of Adjustment Reaction and Alcohol. Alcohol Abuse was reported in every diagnostic group but, as would be expected, was highest (almost 90%) in the alcohol diagnoses group. Drug abuse, including abuse of prescription or nonprescription drugs, was associated with other psychiatric diagnoses. Inappropriate behavior was highly characteristic of the Psychosis group but was reported for more than one-third of the Personality Disorders as well.

Table 2  
Items Which Discriminated among Inpatients Grouped by Discharge Diagnosis

	Discharge Diagnosis						
Demographic and Service History Items	Psychosis	Neurosis	Personality Disorder	Adjustment Reaction	Alcohol Diagnoses	Other Psychi.	Non-Psychi.
Number of Cases	119	10	74	83	42	17	29
Age							
17-18	8.4	10.0	28.4	9.6	2.4	23.5	20.7
19	10.1	0.0	14.9	10.8	19.0	0.0	6.9
20	19.3	30.0	12.2	19.3	16.7	17.6	27.6
21	16.0	10.0	13.5	13.2	14.3	23.5	10.3
22-23	17.6	10.0	6.8	9.6	9.5	11.8	17.2
24-25	10.1	10.0	9.5	14.5	14.3	0.0	6.9
26-30	12.6	10.0	14.9	12.0	11.9	23.5	10.3
31 and over	5.9	20.0	0.0	10.8	11.9	0.0	0.0
Mean	22.5	24.9	21.2	23.1	23.5	21.5	21.1
$\chi^2 = 61.46, p < .05, df = 42$							
Pay Grade							
E-1	36.1	20.0	41.9	25.3	16.7	11.8	27.6
E-2	13.4	10.0	24.3	19.3	19.0	29.4	27.6
E-3	31.1	40.0	24.3	19.3	31.0	23.5	20.7
E-4	13.4	10.0	4.0	16.9	11.9	11.8	10.3
E-5	5.0	0.0	5.4	9.6	9.5	17.6	6.9
E-6 through E-9	.8	20.0	0.0	9.6	11.9	5.9	6.9
Mean	2.4	3.2	2.1	3.0	3.2	3.1	2.6
$\chi^2 = 50.95, p < .01, df = 30$							
Months of Service							
0	8.4	0.0	10.8	4.8	0.0	5.9	3.4
1-6	28.6	20.0	31.1	19.3	2.4	5.9	24.1
7-12	10.1	10.0	18.9	19.3	19.0	23.5	17.2
13-24	17.6	10.0	17.6	10.8	23.8	17.6	27.6
25-36	16.8	10.0	10.8	9.6	19.0	11.8	13.8
37-48	9.2	0.0	5.4	15.7	14.3	11.8	0.0
49 or more	9.2	50.0	5.4	20.5	21.4	23.5	13.8
Mean	22.9	64.6	16.6	41.0	51.3	33.6	22.8
$\chi^2 = 63.56, p < .01, df = 36$							
Marital Status							
Single	82.2	60.0	81.1	56.6	56.8	88.2	75.9
Married	10.2	30.0	14.9	26.5	21.4	11.8	17.2
Other	7.6	10.0	4.0	16.9	23.8	0.0	6.9
$\chi^2 = 33.71, p < .001, df = 12$							
Deck Assignment							
No	55.5	40.0	50.0	74.7	73.8	82.4	55.2
Yes	44.5	60.0	50.0	25.3	26.2	17.6	44.8
$\chi^2 = 20.32, p < .01, df = 6$							



Demographic and Service History Items	Discharge Diagnosis						
	Psychosis	Neurosis	Personality Disorder	Adjustment Reaction	Alcohol Diagnosis	Other Psychi.	Non- Psychi.
<u>Hospitalman/Dental Technician</u>							
No	92.4	90.0	96.0	94.0	92.9	70.6	89.7
Yes	7.6	10.0	4.0	6.0	7.1	29.4	10.3
$\chi^2 = 13.28, p < .05, df = 6$							
<u>Precipitating Factors</u>							
<u>Suicidal Gesture</u>							
No	95.8	80.0	68.5	73.2	71.4	76.5	65.5
Yes	4.2	20.0	31.5	26.8	28.6	23.5	34.5
$\chi^2 = 31.20, p < .001, df = 6$							
<u>Suicidal Ideation</u>							
No	91.4	10.0	71.2	64.6	64.3	76.5	89.7
Yes	8.6	90.0	28.8	35.4	35.7	23.5	10.3
$\chi^2 = 51.11, p < .001, df = 6$							
<u>Marital Problems</u>							
No	97.4	80.0	95.9	76.8	73.8	88.2	86.2
Yes	2.6	20.0	4.1	23.2	26.2	11.8	13.8
$\chi^2 = 32.81, p < .001, df = 6$							
<u>Wants Out of Service</u>							
No	95.7	90.0	57.5	78.0	81.0	94.1	72.4
Yes	4.3	10.0	42.5	22.0	19.0	5.9	27.6
$\chi^2 = 45.99, p < .001, df = 6$							
<u>Trouble with Navy Way of Life</u>							
No	89.7	90.0	68.5	80.5	90.5	88.2	86.2
Yes	10.3	10.0	31.5	19.5	9.5	11.8	13.8
$\chi^2 = 17.77, p < .01, df = 6$							
<u>Drug Abuse</u>							
No	70.9	100.0	84.9	85.4	73.8	23.5	62.1
Yes	29.1	0.0	15.1	14.6	26.2	76.5	37.9
$\chi^2 = 39.68, p < .001, df = 6$							
<u>Alcohol Abuse</u>							
No	91.4	90.0	86.3	80.5	11.9	70.6	79.3
Yes	8.6	10.0	13.7	19.5	88.1	29.4	20.7
$\chi^2 = 119.96, p < .001, df = 6$							
<u>Inappropriate Behavior</u>							
No	10.3	100.0	64.4	72.0	81.0	76.5	75.9
Yes	89.7	0.0	35.6	28.0	19.0	23.5	24.1
$\chi^2 = 133.39, p < .001, df = 6$							
<u>Clinical History</u>							
<u>Days Hospitalized</u>							
1	.8	0.0	1.4	8.4	4.8	5.9	17.2
2-8	42.9	60.0	75.7	81.9	78.6	76.5	75.9
9-15	13.4	0.0	10.8	6.0	7.1	5.9	3.4
16-30	17.6	30.0	9.5	3.6	2.4	11.8	3.4
31 and over	25.2	10.0	2.7	0.0	7.1	0.0	0.0
Mean	21.1	23.9	7.4	4.4	6.9	6.2	3.7
$\chi^2 = 104.41, p < .001, df = 24$							



<u>Clinical History</u>	<u>Discharge Diagnosis</u>						
	<u>Psychosis</u>	<u>Neurosis</u>	<u>Personality Disorder</u>	<u>Adjustment Reaction</u>	<u>Alcohol Diagnoses</u>	<u>Other Psychi.</u>	<u>Non-Psychi.</u>
<u>Medical Board</u>							
No	61.3	70.0	83.8	97.6	97.6	100.0	100.0
Yes	38.7	30.0	16.2	2.4	2.4	0.0	0.0

$$X^2 = 68.72, p < .001, df = 6$$

#### Clinicians' Recommendations

##### Back to Duty

No	83.0	60.0	56.2	21.7	19.0	41.2	10.3
Yes	17.0	40.0	43.8	78.3	81.0	58.8	89.7

$$X^2 = 114.36, p < .001, df = 6$$

##### Administrative Separation

No	93.6	100.0	41.1	88.0	92.9	88.2	82.8
Yes	3.4	0.0	58.9	12.0	7.1	11.8	17.2

$$X^2 = 107.77, p < .001, df = 6$$

##### Drug or Alcohol Treatment

No	89.8	90.0	93.2	91.6	35.7	58.8	69.0
Yes	10.2	10.0	6.8	8.4	64.3	41.2	31.0

$$X^2 = 86.06, p < .001, df = 6$$

##### Other Treatment

No	38.1	60.0	79.4	83.1	85.7	70.6	93.1
Yes	61.9	40.0	20.6	16.9	14.3	29.4	6.9

$$X^2 = 76.31, p < .001, df = 6$$

##### Medical Discharge

No	52.9	90.0	97.3	98.8	97.6	100.0	100.0
Yes	47.1	10.0	2.7	1.2	2.4	0.0	0.0

$$X^2 = 121.57, p < .001, df = 6$$

Days Hospitalized. Days hospitalized discriminated among the diagnostic groups. Mean number of days ranged from four days for individuals with nonpsychiatric diagnoses to 24 days for those few individuals with discharge diagnoses of Neuroses. With the exception of the Psychosis and Neurosis groups, more than three-fourths of all individuals were released from the hospital within eight days of their admission, regardless of the diagnosis. Two-fifths or more of those with Psychosis or Neurosis diagnoses were hospitalized more than two weeks.

Disposition Recommendations. A number of the clinicians' recommendations at the time of release from the hospital discriminated among the groups (Table 2). Large percentages of individuals in the Adjustment Reaction (78%), Alcohol diagnoses (81%), and Nonpsychiatric diagnoses (90%) groups were recommended for return to duty. Relatively few (17%) with Psychosis diagnoses received such a recommendation. Recommendations for administrative separations were often associated with Personality Disorder diagnoses (59%) but rarely with the Psychoses (3%). No recommendations for administrative separation were made for those few persons with Neurosis diagnoses. Drug and alcohol treatment was recommended most often for Alcohol and Other Psychiatric diagnosis groups, 64% and 41%, respectively. Those with the diagnoses of Psychosis were most often recommended for other treatment (62%), usually transfer to another facility.

Return to Duty Recommendations. Items associated with recommendations for return to duty are shown in Table 3. Positive recommendations were associated with more time in service, clerical or aviation deck assignments, shorter periods of hospitalization, recommendations for special drug or alcohol treatment, and discharge diagnoses of Adjustment Reaction, Alcohol diagnoses, and Nonpsychiatric diagnoses. Men whose hospital admissions were precipitated by suicide gestures, marital problems, or substance abuse problems were more likely to be returned to duty than those whose behavior on admission was described as inappropriate.

Table 3

Items That Discriminated between Personnel Returned to Duty and  
Not Returned to Duty for the Psychiatric Inpatient Population

<u>Service History</u>		<u>Number</u>	<u>Percent Returned to Duty</u>
<u>Months of Service</u>			
Less than 1		24	16.7
1-6		83	48.2
7-12		59	69.5
13-24		65	52.3
25-36		51	47.1
37-48		36	50.0
49 or more		54	55.6
$\chi^2 = 20.47, p < .01, df = 6$			
<u>Job Type</u>			
Deck	No	229	57.2
	Yes	143	42.0
$\chi^2 = 8.19, p < .01, df = 1$			
Clerical	No	359	50.1
	Yes	13	84.6
$\chi^2 = 5.97, p < .05, df = 1$			
Aviation Deck	No	347	49.9
	Yes	25	72.0
$\chi^2 = 4.58, p < .05, df = 1$			
<u>Precipitating Factors</u>			
Suicide Gesture	No	293	48.1
	Yes	78	62.8
$\chi^2 = 5.33, p < .05, df = 1$			
Marital Problem	No	326	48.5
	Yes	44	72.7
$\chi^2 = 9.13, p < .01, df = 1$			
Drug Problem	No	278	48.2
	Yes	92	60.9
$\chi^2 = 4.44, p < .05, df = 1$			
Alcohol Problem	No	285	47.0
	Yes	85	65.9
$\chi^2 = 9.33, p < .01, df = 1$			
Inappropriate Behavior	No	197	65.5
	Yes	173	35.3
$\chi^2 = 33.68, p < .001, df = 1$			
<u>Clinical History</u>			
<u>Days Hospitalized</u>			
1		17	82.4
2-8		249	60.2
9-15		33	36.4
16-30		38	31.6
31 or more		35	8.6
$\chi^2 = 48.97, p < .001, df = 4$			
<u>Clinician's Recommendations</u>			
Medical Board	No	339	55.8
	Yes	33	6.1
$\chi^2 = 29.72, p < .001, df = 1$			

<u>Clinician's Recommendations</u> (continued)		<u>Number</u>	<u>Percent Returned to Duty</u>
Drug/Alcohol Treatment	No	304	44.7
	Yes	68	80.9
$\chi^2 = 29.06, p < .001, df = 1$			
Other Treatment	No	253	67.6
	Yes	119	16.8
$\chi^2 = 83.55, p < .001, df = 1$			
<u>Discharge Diagnosis</u>			
Psychosis		118	16.9
Neurosis		10	40.0
Personality Disorder		73	43.8
Adjustment Reaction		83	73.8
Alcohol Diagnosis		42	81.0
Other Psychiatric Diagnosis		17	58.8
Nonpsychiatric Diagnosis		29	89.6
$\chi^2 = 114.36, p < .001, df = 6$			

Medical Boards. Appearance before a Medical Board occurred most often among those with diagnoses of Psychosis, and medical discharges were given to almost half (47%) of all individuals with Psychosis diagnoses. Very few individuals in any other diagnostic group received medical discharges.

Posttreatment Effectiveness. The items which discriminated effective from noneffective performance for the return to duty group are shown in Table 4. Effectiveness increased with advancing pay grade; whereas just 42% of the men in the lowest pay grade (E-1) were effective, more than 70% of those in pay grades E-5 and higher were effective. Blacks had a higher effectiveness rate when compared with all others, 76% versus 53%. Several precipitating factors discriminated effective from noneffective performance: Those persons who had indicated that they had trouble with the Navy way of life and/or wanted out of service had low effectiveness rates, 26% to 29%, whereas those who had abused alcohol had a high effectiveness rate, 71%. Individuals recommended for administrative discharge among those recommended for return to duty had a very low effectiveness rate, 9%. Discharge diagnosis discriminated effectiveness among those recommended for return to duty. With the exception of those with Personality Disorder diagnoses who had a low effectiveness rate, 16%, the rates of all other diagnostic groups were moderately high to high, ranging from 60% for those with nonpsychiatric diagnoses to 100% for those few individuals with Neurosis diagnoses.

Table 4

Items That Discriminated Effective Outcome for  
the Psychiatric Inpatient Population Returned to Duty

<u>Variable</u>		<u>Number</u>	<u>Percent Effective</u>
Pay Grade:	E-1	50	42.0
	E-2	38	47.4
	E-3	44	65.9
	E-4	21	57.1
	E-5	14	71.4
	E-6 to E-9.	12	91.7
$\chi^2 = 14.46, p < .05, df = 5$			
Race: Black	No	154	53.2
	Yes	25	76.0
$\chi^2 = 4.53, p < .05, df = 1$			
Job Type: Mechanical	No	157	59.2
	Yes	22	36.4
$\chi^2 = 4.11, p < .05, df = 1$			

<u>Variable</u>		<u>Number</u>	<u>Percent Effective</u>
<u>Precipitating Factors</u>			
Wants Out of Service	No	139	65.5
	Yes	39	25.6
$\chi^2 = 19.68, p < .001, df = 1$			
Trouble with Navy Way of Life	No	147	62.6
	Yes	31	29.0
$\chi^2 = 11.74, p < .001, df = 1$			
Alcohol Abuse	No	126	50.8
	Yes	52	71.2
$\chi^2 = 6.22, p < .05, df = 1$			
Recommended for Administrative Separation	No	146	67.1
	Yes	33	9.1
$\chi^2 = 36.87, p < .001, df = 1$			
<u>Discharge Diagnosis</u>			
Psychosis		15	73.3
Neurosis		4	100.0
Personality Disorder		32	15.6
Adjustment Reaction		61	60.7
Alcohol Diagnosis		33	66.7
Other Psychiatric Diagnosis		10	70.0
Nonpsychiatric Diagnosis		25	60.0
$\chi^2 = 29.18, p < .001, df = 6$			

#### DISCUSSION

Discharge diagnoses of Psychosis accounted for a much larger proportion of the patient population in this study than in earlier studies (1-3). Both Neurosis and Personality Disorders accounted for considerably smaller proportions than in earlier studies. The lower relative frequency of Personality Disorder diagnoses, in all probability, reflects the current regional policy of discouraging hospitalization for Personality Disorders unless their behavior represents a potential danger to themselves or others. In this connection, suicidal gesture and inappropriate behavior were reported for approximately one-third of those diagnosed Personality Disorder at discharge. The degree to which the diagnostic distribution of this population reflects policies and circumstances unique to this region as opposed to Navywide policies is not known. Comparative studies with patient populations in other regions could provide clarification.

The proportionately larger number of patients with psychotic diagnoses may partly reflect a policy of treating psychotics exclusively in the hospital. It may, however, be a consequence of large numbers of young Navy personnel undergoing recruit training and experiencing their first duty assignments in the area served by the hospital. Many individuals are unable to meet these demands and stresses and fail in their adjustment to Navy life; psychiatric illness is one response. The fact that more than one-third of those who received a Psychosis diagnosis had been in the service six months or less tends to support this position. It should be possible by reviewing family and social history to screen out of the service at the recruiting level individuals likely to become psychiatrically ill during their first months in the Navy. This suggestion takes on added significance if, in truth, the proportion of those diagnosed Psychosis is increasing; many of these individuals prove to be an ongoing burden in that they may need continued hospitalization and are transferred to Veterans Administration hospitals.

The shifts in diagnosis from admission to discharge have a number of implications. The greater frequency of the Neurosis diagnoses on admission may be indicative of the clinicians conservative approach. Diagnoses of Neurosis may be compensable whereas others, such as a Personality Disorder or alcohol diagnosis, may not. Further, these two diagnoses may be viewed more negatively than Neurosis. Unit Commanders are likely to consider men returned to their units with Per-

sonality Disorder diagnoses in their record as candidates for administrative separation whether or not the clinicians have made a recommendation for separation. Thus, clinicians make the diagnosis only after a longer period of observation. In this study 40% of those with Personality Disorder diagnoses were not recommended for administrative discharge, yet the overwhelming majority of them were discharged from service prematurely. The instability in diagnosis may also reflect lack of clarity in symptomatology associated with these several diagnoses. Finally, it is possible that patients are given neurotic diagnoses to facilitate admission to the hospital where policies against admitting Personality Disorders exist.

Number of days hospitalized was considerably less for most diagnostic groups than was reported in earlier studies (1,3,4). This difference may reflect regional policy of transferring to a medical holding company individuals no longer in need of hospital care but who still require follow-up or who are awaiting administrative action. It is possible that shorter hospital stays for most conditions reflect changes in the management of psychiatric illness, namely, that patients are returned to "the community" as soon as their conditions permit rather than being kept in the hospital environment. Further study is indicated to clarify this point.

Despite the changes in proportions of patients in the various diagnostic categories in this population, which suggests that there may be differences in the kinds of patients being admitted to the hospital, the profiles of the diagnostic groups that emerge in this study are not unlike those that have characterized Navy psychiatric populations during the last two decades (5-7). Individuals diagnosed Personality Disorder were younger, nonrated, had spent less time in service, were poorly motivated for continued service, and were frequently recommended for administrative separation. On the other hand, those persons who were diagnosed Adjustment Reaction were older, had achieved higher pay grades, and had spent more time in the service; marital problems were seen as contributing factors to their distress.

The association of return to duty and posttreatment effectiveness with seniority, advanced pay grade, and greater time in service is consistent with other studies of psychiatric patients hospitalized in the Navy (1,3,6). These were the characteristics of the individuals diagnosed Adjustment Reaction and Alcoholism, two diagnostic groups among those with the highest effectiveness rates. The low effectiveness rate among those diagnosed Personality Disorder also is consistent with the outcome found in earlier studies.

#### REFERENCES

1. Gunderson, E. K. E., Looney, J. G., & Goffman, J. M. A comparative study of prognosis in major mental disorders. Report No. 75-80, Naval Health Research Center, San Diego, California, 1975.
2. Arthur, R. J. & Gunderson, E. K. E.: Stability in psychiatric diagnoses from hospital admission to discharge. Journal of Clinical Psychology, 1966, 22, 140-144.
3. Edwards, D. & Berry, N. H.: Psychiatric decisions: An actuarial study. Journal of Clinical Psychology, 1974, 30, 153-159
4. Looney, J. G. & Gunderson, E. K. E.: Transient Situational Disturbances: Course and outcome. American Journal of Psychiatry, 1978, 135, 660-663.
5. Arthur, R. J. & Gunderson, E. K. E.: The prediction of diagnosis and disposition in naval hospitals. Journal of Clinical Psychology, 1966, 22, 259-264.
6. Edwards, D. & Berry, N. H.: Prediction for the Character and Behavior Disorder in an occupational setting. Journal of Clinical Psychology, 1973, 29, 171-174.
7. Clum, G. A. & Hoiberg, A.: Prognostic indexes in a military psychiatric population. Journal of Consulting and Clinical Psychology, 1971, 36, 436-440.

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by discharge diagnosis specific profiles emerged. Those diagnosed Personality Disorder were very young men and women, in the lower pay grades, and with the fewest months of service. They were most likely to be recommended for administrative separation and had the lowest effectiveness rate following release from the hospital. Those receiving Adjustment Reaction, Neurosis, or Alcohol diagnoses were older, had more time in service, were of higher pay grade, and had effectiveness rates of 60% or greater. The implications of the findings are discussed including the need for comparative studies with other hospitalized populations.

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